

# ABSTRACT

A router includes at one network interface (230, 235, 240, 245) and a processor (220). Each network interface (230, 235, 240, 245) connects to at least one link. The link(s) further connect to at least one node of multiple nodes in a network. Each network interface (230, 235, 240, 245) further receives link state information. The link state information includes link data rate information. The processor (220) determines whether the link data rate information indicates if the links interconnecting the nodes satisfy a threshold data rate, and assigns virtual circuit identifiers to nodes in the network based on whether the link data rate information indicates that the links satisfy the threshold data rate.